
5. Florist Shop Displays

Program Name: Florist.java

Input File: florist.dat

Susan is the manager of a florist shop. She likes to display her flowers in pots throughout her store. To make the displays more esthetically pleasing, she places the pots on plant stands, one pot per stand, using plant stands of different heights so some displays are taller than others. Unfortunately even though all of the display stands are the same diameter, they have different limits on how much weight they can hold.

You are to write a program that will determine the maximum number of plants Susan can display given the weights of the plants and the weight limits of the plant stands.

Input

The first line will contain an unknown number of space delimited positive integers that represent the weights of the plant stands. The second line of input will contain a single integer n that indicates the number of displays to be considered. Each of the following n lines will contain a space delimited list of an unknown number of positive integers that indicate the weights of the plants for the display.

Output

In the order of input, you will print the number of plants that can be placed on stands for each display.

Example Input File

```
12 14 5 6 7 12 14 3 12 8
3
5 7 9 12 3 2 12 14 7 8 10
12 4 6 7 15 13 13 15 12 10 7 5 8 7
5 7 10 7 16 7 8 14 15 9 17
```

Example Output to Screen

```
10
9
8
```